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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,566	08/05/2003	Tamon Kasajima	033211-037	7157

21839 7590 12/30/2005

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EXAMINER

BLOUIN, MARK S

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/633,566	<b>Applicant(s)</b> KASAJIMA ET AL.	
	<b>Examiner</b> Mark Blouin	<b>Art Unit</b> 2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-6 and 8-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 8-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)<br>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)<br>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____<br>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)<br>6) <input type="checkbox"/> Other: _____ |
|---|--|

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### **Detailed Action**

#### ***Continued Examination Under 37 CFR 1.114***

- A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 1, 2005 has been entered.

#### ***Response to Amendment***

- The reply filed on December 1, 2005 was applied to the following effect: Claims 1 and 6 were amended.

#### ***Claim Objections***

1. Claims 3,8,12, and 15 are objected to because of the following informalities: The dependent claims refer back to cancelled claims 2 and 7. Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of 35 U.S.C. 102(e) which forms the basis for all obviousness rejections set forth in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 3-6, and 8-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuwajima et al (USPN 6,614,625).

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4. Regarding Claims 1 and 6, Kuwajima et al shows (Fig. 6A) a disk drive apparatus including at least one information recording disk (5), and at least one head arm assembly that comprises a head slider (8) having at least one head element, a high-stiffness arm member (2) generating no load, a flexure (9) with one end section fixed to one end section of the arm member, the flexure being fixed to the head slider, and having resilience for determining flying attitude of the head slider, an actuator (3) mounted to the other end section of the arm member (2), for rotationally moving the arm member in a direction substantially parallel with a surface of the information recording disk around a horizontal rotation axis of the arm member, and a resilient plate spring (11) for generating a load, the plate spring having one end section fixed to the arm member and the other end section provided with a load point that is not fixed to but abutted (Fig 6B) to the flexure for energizing the head slider in a direction to the surface of the information recording disk.

5. Regarding Claims 3 and 8, Kuwajima et al shows (Fig. 6A) the disk drive apparatus and head arm assembly, wherein one end of the plate spring (11) is fixed to a first surface (top) of the arm member, a second surface (bottom) of the arm member facing the recording medium surface, and wherein the one end section of the flexure (9) is fixed to the second surface of the arm member.

6. Regarding Claims 5 and 10, Kuwajima et al shows (Fig. 6A) the disk drive apparatus and head arm assembly, wherein the at least one head element comprises at least one thin-film magnetic head element (Col 6, lines 7-14).

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***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwajima et al (USPN 6,614,625) in view of Hudson et al (USPN 6,229,667).

9. Regarding Claims 4 and 9, Kuwajima et al shows (Fig. 6A) shows all the features described, *supra*, but does not show the disk drive apparatus, wherein the horizontal rotation axis is provided at a horizontal bearing section located at a midpoint of the arm member, and wherein the horizontal bearing section has means for adjusting a distance between the arm member and the surface of the information recording disk.

Hudson et al shows (Fig. 4A) the disk drive apparatus, wherein the horizontal rotation axis is provided at a horizontal bearing section (the portion with the threads shown) located at a midpoint of the arm member, and wherein the horizontal bearing section has means for adjusting a distance between the arm member and the surface of the information recording disk.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the actuator arm of Kuwajima et al with the horizontal bearing section of Hudson et al. The rationale is as follows: One of ordinary skill in the art at the time the invention was made would have been motivated to provide the actuator arm of Kuwajima et al with the horizontal bearing section of Hudson et al in order to maintain the optimum flying height of the head over the disk.

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10. Claims 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwajima et al (USPN 6,614,625) in view of Goss (USPN 5,786,961).

11. Regarding Claims 11-16, Kuwajima et al shows all the features described, *supra*, but does not show a resilient plate spring has a dimple ball fixed to a top end section thereof.

Goss shows (Fig. 4) a resilient plate spring has a dimple ball (74) fixed to a top end section thereof.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the actuator arm of Kuwajima et al with the dimple ball of Goss. The rationale is as follows: One of ordinary skill in the art at the time the invention was made would have been motivated to provide the actuator arm of Kuwajima et al with the dimple ball of Goss in since the structures have equivalent functions as a fulcrum point.

#### ***Response to Arguments***

12. Applicant's arguments with respect to claims 1,3-6, and 8-16 have been considered but are moot in view of the new ground(s) of rejection.

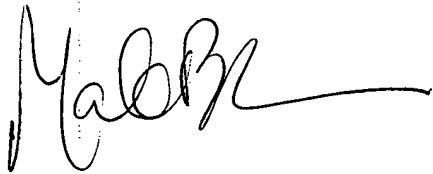
#### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Blouin whose telephone number is 571-272-7583. The examiner can normally be reached on M-F from 6:00 to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch, can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Blouin  
Patent Examiner  
Art Unit 2653  
December 19, 2005

A. J. HEINZ  
PRIMARY EXAMINER  
GROUP ~~2653~~ A. U. 2653

